MCLAB
Molecular Cloning Laboratories

User Manual

Version 1.0
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Product name: Inorganic Pyrophosphatase, E. coli

Cat #: IPE-100, IPE-200, IPE-300, IPE-OEM

Description:
Inorganic pyrophosphatase (PPase) is ubiquitous in nature and plays an important role in energy metabolism, providing a thermodynamic pull for biosynthetic reactions such as protein, RNA, and DNA synthesis. Escherichia coli K-12 gene ppa encoding inorganic pyrophosphatase (PPase) was cloned and sequenced. The 5'-end of the ppa mRNA was identified by primer extension mapping.

Source:
E. coli strain carrying a plasmid encoding pyrophosphatase from Escherichia coli K-12.

Application:
- Role in protein, RNA, and DNA synthesis
- Catalyzing the reaction PPi + H_2O > 2Pi

Unit Definition:
One unit will release 1.0 µmole of inorganic orthophosphate per minute at pH 9 at 25°C.

Recommended Storage Conditions: -20°C

Reference:
Kornberg, A. 1962. On the metabolic significance of phosphorolytic and pyrophosphorolytic reactions, p. 251-264. In H. Kasha and P. Pullman (ed.), Horizons in biochemistry. Academic Press, New York.